

Patent Claims

1. Material system for use in 3D-printing comprising binder and solvent as well as optionally filler materials, wherein the binder is soluble in the solvent,

thereby characterized,

that the material system contains two complementary polyelectrolytes and/or an initiator for a crosslinking reaction of the binder.

2. Material system according to Claim 1, thereby characterized, that the two complementary polyelectrolytes are contained in two binders or in a binder and in the solvent.
3. Material system according to one of the preceding claims, thereby characterized, that the initiator, preferably a photoinitiator, is contained in the solvent or in the one or both binders.
4. Material system according to one of the preceding claims, thereby characterized, that the filler material is coated with the binder.
5. Material system according to one of the preceding claims, thereby characterized, that material system is residual-ash-poor.
6. Material system according to one of the preceding claims, thereby characterized, that it is flowable in an autoclave.
7. Material system according to one of the preceding claims, thereby characterized, that at least a substantial portion

of the filler material and binder is in the form of rounded-off particles.

8. Material system according to Claim 7, thereby characterized, that average particle diameter is smaller than approximately 40 μm .
9. Material system according to one of the preceding claims, thereby characterized, that filler material is comprised of wax, PS, PMMA or POM.
10. Material system according to one of the preceding claims, thereby characterized, that the filler material is comprised of metal, ceramic or carbide.
11. Material system according to one of the preceding claims, thereby characterized, that the binder is comprised of a water-soluble polymer, preferably of PVP or a copolymer thereof.
12. Material system according to one of the preceding claims, thereby characterized, that the portion of the binder comprises less than 10 weight percent of the material system.